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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,675	12/05/2003	Robert Douglas Nicholson	25816-0020	9047

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SUTHERLAND ASBILL & BRENNAN LLP		
999 PEACHTREE STREET, N.E.		
ATLANTA, GA 30309		

EXAMINER	
JUNTIMA, NITTAYA	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/728,675	ROBERT DOUGLAS NICHOLSON	
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/20/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because numeral references 105, 110, 115, 120, 135, 130, 140, 145, 150, 155, and 160 in Fig. 1 and numeral references 205, 210, 215, 220, 230, 235, 240, 245, 250, 255, and 260 in Fig. 2 require descriptive text labels for clarity purposes. For example, numeral reference 105 in Fig. 1 should be labeled as “a server.”

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

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2. The disclosure is objected to because of the following informalities:
- on page 10, lines 21, “ADSL modem 245” should be changed to “of ADSL paths 240.”

Appropriate correction is required.

Claim Objections

3. Claim 1 is objected to because of the following informalities:
- in claim 1, line 8, “ADSL” should be changed to “ADSLs” to reflect a plurality of the ADSL lines being used.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (Fig. 1) (hereinafter “APA”) and the art of record, Keller-Tuberg (US 2002/0154637 A1) (hereinafter “Keller”).

Regarding claim 1, as shown in Fig. 1, APA teaches a method for transmitting data from a source to a destination, comprising:

Providing digital data (a server 105 generates a digital stream for transmission over path 110, page 5, lines 17-26 of the specification).

Inverse-multiplexing said digital data into a plurality of ATM data cells (ATM switch 115 inverse multiplexes the digital data stream into ATM cells for transmitting to an ATM switch 130, page 5, lines 22-page 5, line 1 of the specification).

Identifying at least one transmission path (ATM network 125 and connection between the central office 135 and a client LAN 160) by which said plurality of ATM data cells are transmitted to a destination (a client LAN 160) (page 5, lines 27-page 6, lines 17 of the specification).

Receiving said ATM data cells at said destination (a client LAN 160), see page 6, lines 9-page 7, lines 2 of the specification.

The difference between APA and the claim is that APA uses, at least in part, a plurality of T1 lines 140 to transmit ATM cells to the destination (page 6, lines 6-26 of the specification), not a plurality of ADSL lines as claimed.

However, as shown in Fig. 12, Keller teaches transmitting a plurality of ATM cells received from ATM network 815 at the DSLAM 845 to a CPU 880 connecting to an IMA-ADSL modem 875 at a subscriber premise apparatus 825 using, at least in part, a plurality of ADSL lines 885 and 890 (paragraph 68).

Given the teaching of Keller, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of APA by replacing the ATM switches 130

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and 145 and T1 lines 140 in Fig. 1 of APA with the DSLAM 845, IMA-ADSL modem 875, and ADLS lines 885 and 890 in Fig. 12 of Keller such that the step of transmitting a plurality of ATM cells to said destination using, at least in part, a plurality of ADSLs would be included. The suggestion/motivation to do so would have been to deliver basic video communications to ADSL subscribers by combining two or more IM communication links into one logical links (Keller, paragraph 4).

Regarding claim 2, APA teaches the step of multiplexing said ATM data cells to reconstruct, at said destination (a client LAN 160), the digital data (when inverse multiplexing is used, at the end of the inverse multiplexing the ATM cells transmitted over a plurality of inverse multiplexed links must be multiplexed in order to recover the data stream, page 5, lines 13-16 and page 6, lines 9-26 of the specification).

Regarding claim 3, it is inherent that the step of displaying the digital data must be included in APA when a recipient computer system 155 including a video display device receives video data stream (page 6, lines 14-17, 26-page 7, lines 2 and 6-9 of the specification).

Regarding claim 4, as shown in Fig. 1, APA teaches transmitting said plurality of ATM data cells to said destination (a client LAN 160) using, at least in part, an ATM network (125), see page 5, lines 27-page 6, lines 4 of the specification.

Regarding claim 5, as shown in Fig. 1, APA teaches transmitting said plurality of ATM data cells to said destination (a client LAN 160) using, at least in part, a virtual circuit (page 5, lines 27-page 6, lines 4 of the specification).

Regarding claim 6, APA fails to teach modulating the virtual circuit onto an ADSL. However, Keller teaches that the DSLAM 845 divides high speed data traffic transmitted over a logical link (equivalent to the virtual circuit) from ATM network 815 into a plurality of ADSL links, paragraphs 28, 66 and 68 and Figs. 11-12, therefore, the logical link must be modulated onto an ADSL.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of APA such that the step of modulating the virtual circuit onto an ADSL would be included. The suggestion/motivation to do so would have been to deliver the traffic in a downstream direction to the destination over ADLS links.

Regarding claim 7, APA fails to teach reconstructing said ATM data cells to reconstruct the digital data using an ADSL modem. However, Keller teaches re-multiplexing the low-speed transmissions into the original high speed flow (equivalent to reconstructing ATM data cells to reconstruct digital data) using an ADSL modem 875 in Figs. 1-2, paragraphs 28, 66, and 68.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of APA such that the step of reconstructing said ATM data cells to reconstruct the digital data using ADSL modem would be included. The

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suggestion/motivation to do so would have been to provide an increase in the aggregate service bit rate utilizing IMA functionality as taught by Keller, paragraph 28.

Regarding claim 8, APA teaches that identifying at least one transmission path using ATM protocol (a path is set up over ATM network 125 using ATM protocol, page 5, lines 27- page 6, lines 4, 14-17 of the specification).

Claim 9 is a system claim corresponding to method claim 1, and is therefore, rejected under the same reason set forth in the rejection of claim 1 with the addition of a content provider (120, Fig. 1, APA, page 5, lines 20-22 of the specification), an ATM switch (115, Fig. 1) in electrical communication with said content provider (APA, page 5, lines 17-22 of the specification).

Claims 10 and 11 are system claims corresponding to method claims 5 and 7, respectively, and are therefore rejected under the same reason set forth in the rejection of claims 5 and 7, respectively, with an addition of ATM network (125, Fig. 1, APA, page 5, lines 27-page 6, lines 4 of the specification).

Claim 12 is a system claim corresponding to method claim 6, and is rejected for the same reason set forth in the rejection of claim 6 with an addition of DSLAM (845, Figs. 11-12, Keller).

Regarding claim 13, APA does not explicitly teach that the content provider (120, Fig. 1, page 5, lines 17-22 of the specification) comprises a video-on-demand server. However, APA also teaches that video on demand is one of many video services that can be provided by the content provider (page 1, lines 20-28 of the specification) and server 105, Fig. 1 is provided to generate video content (page 5, lines 17-20 and page 6, lines 14-17 of the specification). An official notice is taken that it is well known to retrieve the stored video on demand from a video-on-demand server; thereby enabling subscribers to receive video-on-demand service from a provider. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of APA to include a video-on-demand server such that video-on-demand service can be provided to the subscribers.

Regarding claim 14, as shown in Fig. 1, APA teaches that the content provider (120) and ATM switch (115) are in communication via a local area network (server 105, a path 110, and switch 115 constitute a local area high speed network). See page 5, lines 17-22 of the specification.

Regarding claim 15, although APA teaches transmission speed of the local area network (server 105, a path 110, and switch 115 constitute a local area high speed network which must have speed, page 5, lines 17-22 of the specification), APA does not teach that the aggregate transmission speed of the at least two ADSLs at least equals the transmission speed of the local area network.

However, Keller teaches that the aggregate transmission speed of the at least two ADSLs 885 and 890, Fig. 12, at least equals the transmission speed of an original high speed flow arriving from ATM network 815, Fig. 12 (paragraphs 4-5 and 28).

Given the teaching of Keller, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of APA such that the aggregate transmission speed of the at least two ADSLs at least equals the transmission speed of the local area network. The suggestion/motivation to do so would have been to facilitate grade video and interactive video services for ADSL subscribers (Keller, paragraph 4).

Conclusion

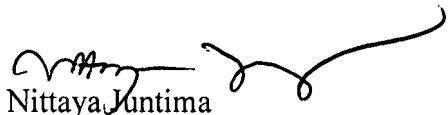
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Nittaya Juntima', with a long, sweeping horizontal stroke extending to the right.

Nittaya Juntima
Examiner, AU 2616
August 2, 2007